

AMENDMENTS TO THE SPECIFICATION:

Amend the paragraph bridging pages 6 and 7 of the specification as follows:

A related medical method comprises, in accordance with the present invention, (a) placing a carrier holding a multiplicity of electromechanical transducers and a patient adjacent to one another so that the transducers are disposed in effective pressure-wave-transmitting contact with the patient, (b) supplying a first plurality of the transducers with electrical signals of at least one pre-established ultrasonic frequency to produce first pressure waves in the patient, (c) receiving, via a second plurality of the transducers, second pressure waves produced at internal tissue structures of the patient in response to the first pressure waves, and (d) performing electronic 3D volumetric data acquisition by solely an electronic scanning of said internal tissue structures and performing electronic 3D imaging (which includes determining three-dimensional shapes) of the internal tissue structures in part by analyzing signals generated by the second plurality of the transducers in response to the second pressure waves. At least one of the supplying and receiving steps is executed to effectuate electronic scanning of the internal tissue structures.

Amend the first full paragraph on page 27 (lines 1-13) as follows:

Web 132 is draped over or placed around a portion of a patient's body which is to be monitored ultrasonically. Control unit 140 then energizes signal generator 136 and

operates switching circuit 138 to activate transducers 134 in a predetermined sequence. Each transducer 134 may be a multiple-element aperture. In that case, several piezoelectric elements or scalar excitation transducers are energized simultaneously with the excitation waveform where appropriate phases shifts or time delays are applied to effectuate electronic scanning. Depending on the transducer or combination of transducers 134 which are activated, control unit 140 operates switching circuit 144 to connect a predetermined sequence of sensors 142 to pressure wave analyzer 146. Again, each sensor 142 may be a multiple-element aperture, whereby a plurality of piezoelectric crystals are monitored simultaneously to receive a reflected pressure waveform. Pressure wave analyzer 146 and control unit 140 cofunction to provide electronic 3D volumetric data acquisition and to determine three dimensional structural shapes from the echoes detected by sensors 142. The volumetric data acquisition is performed by solely the electronic scanning of the three dimensional structural shapes.